



NEW CLAIMS 12-24

RECEIVED  
OCT 15 2002  
TO 1100 MAIL ROOM

12. (New) A device for filtering and adding a grain-refining material to a metal melt, said device having a flow direction for said melt, said device comprising:

a first filter comprising a porous filter medium;

a grain-refining material feed, said feed disposed away from said first filter in said flow direction; and

a second filter, said second filter disposed away from said feed in said flow direction.

13. (New) A device according to claim 12 wherein said first filter is configured to operate based on cake filtration.

14. (New) A device according to claim 12 wherein said first filter comprises a ceramic foam plate.

15. (New) A device according to claim 14 wherein said ceramic foam plate has a thickness of 5 to 30 mm.

16. (New) A device according to claim 14 wherein said ceramic foam plate has a thickness of 10 to 15 mm.

17. (New) A device according to claim 12 wherein said first filter comprises a sintered material.

18. (New) A device according to claim 12 wherein said first filter comprises a material deposited by CVD.

19. (New) A device according to claim 12 wherein said second filter comprises a porous filter medium.

20. (New) A device according to claim 19 wherein said second filter comprises a deep-bed filter.

21. (New) A device according to claim 20 wherein said deep-bed filter is a loose-fill bed filter.

22. (New) A device according to one of claims 12 to 21 wherein a filter selected from the group consisting of said first filter and said second filter are configured to be heated.

23. (New) A device according to one of claims 12 to 21 wherein both said first and second filters are configured to be heated.

24. (New) A method for filtering and adding a grain refining material to a metal melt, said method comprising:

filtering said melt using a porous medium;

adding said grain-refining material to said melt after said filtering said melt using a porous medium; and

filtering said melt using a second filter after said adding.